Q87956



USSN: Not yet assigned

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

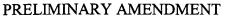
1. (original): A silicon carbide sintered body, wherein

the porosity obtained from areas of silicon carbide particles and silicon particles in a sectional polished surface of the silicon carbide sintered body is greater than 15% and less than 30%, when the porosity (%) equals (the area of silicon particles/(the area of silicon particles + the area of silicon carbide particles)) x 100; and

a content of residual silicon is less than 4% to a total volume of the silicon carbide sintered body.

- 2. (original): The silicon carbide sintered body according to claim 1, wherein a total content of impurity elements other than silicon and carbon in the silicon carbide sintered body is less than 10 ppm.
- 3. (currently amended): The silicon carbide sintered body according to claim 1 or 2, wherein a content of nitrogen is greater than 150 ppm.

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4. (currently amended): A manufacturing method of a silicon carbide sintered body that uses a reaction sintering method, comprising

- (1) dissolving and dispersing silicon carbide powder in a solvent, followed by pouring an obtained slurry-like powder mixture in a mold, further followed by drying to obtain a green body,
- (2) calcining the obtained green body under a vacuum atmosphere or an inert gas atmosphere at a temperature in the range of 1200°C to 1800°C to obtain a calcined body 1,
 - (3) impregnating the obtained calcined body 1 with a carbon source,
 - (4) calcining a calcined body 2 impregnated with a carbon source,
- (5) reaction sintering where the obtained calcined body 2 is impregnated with molten metallic silicon and free carbon in the calcined body 2 and silicon are reacted to obtain a silicon carbide body, and
- (6) heating in a vacuum atmosphere at a temperature in the range of 1450°C to 1700°C for 30 to 90 minutes to remove unreacted silicon.
- 5. (new): The silicon carbide sintered body according to claim 1, wherein the bending strength is greater than 200 MPa.
- 6. (new): The silicon carbide sintered body according to claim 1, further comprising a structure in which silicon particles are uniformly dispersed.

PRELIMINARY AMENDMENT

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7. (new): The silicon carbide sintered body according to claim 1, wherein the

porosity is greater than 15% and less than 20%.

8. (new): The manufacturing method of a silicon carbide sintered body according to

claim 4, wherein in the heating to remove unreacted silicon a temperature is kept in the range of

1600°C to 1700°C for 50 to 70 minutes to remove the unreacted silicon.

9. (new): The manufacturing method of a silicon carbide sintered body according to

claim 4, wherein the obtained silicon carbide sintered body has the bending strength of greater

than 200 MPa.

10. (new): The manufacturing method of a silicon carbide sintered body according to

claim 4, wherein the obtained silicon carbide sintered body has a structure where silicon particles

are uniformly dispersed.

11. (new): The manufacturing method of a silicon carbide sintered body according to

claim 4, wherein the obtained silicon carbide sintered body has the porosity of greater than 15%

and less than 20%.

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